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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/228,872	01/11/1999	MICHAEL W. BARRY	TRSY-23.677	8021
25883	7590	04/06/2004		
HOWISON & ARNOTT, L.L.P P.O. BOX 741715 DALLAS, TX 75374-1715			EXAMINER WALLERSON, MARK E	
			ART UNIT 2626	PAPER NUMBER 33
DATE MAILED: 04/06/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/228,872

Applicant(s)

BARRY ET AL.

Examiner

Mark E. Wallerson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 5-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 5-13, 15-23 and 25-27 is/are rejected.
- 7) ☐ Claim(s) 14 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Part III DETAILED ACTION

Notice to Applicant(s)

1. This action is responsive to the following communications: amendment filed on 1/30/04.
2. This application has been reconsidered. Claims 5-27 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry et. al. (hereinafter referred to as Barry) (U. S. 5,596,416) in view of Matias (U. S. 5,528,374).

With respect to claims 5, 7, and 18, Barry discloses a multiple print engine (column 1, lines 56-57) for printing one or more copies (files) of a multiple page document (column 1, lines 57-63) input as a single multiple page print job (column 1, lines 63-65 and column 3, lines 36-42) comprising a plurality of physical print engines (10) each having an input for rasterized page data, and an output bin (23) for receiving printed output pages; a job distributor (30) for receiving multiple page document (column 3, lines 22-25) and providing the rasterized page data for parallel distribution to the inputs of the plural physical print engines (column 3, lines 35-55)

according to print job parameters associated with and recovered from the rasterized data (column 3, lines 39-42).

Barry differs from claims 5, 7, and 18 in that he does not clearly disclose that the job distributor has a single RIP engine (processor).

Matias discloses a printing apparatus in which a single RIP (16) processes jobs for plural print engines (figure 3), the front end device may queue or input the same or different job to each engine via the multiplexer, wherein the jobs are forwarded to the engines based on the security level of the jobs (column 6, lines 51-67) (which reads on providing the rasterized data to the plural engines according to parameters associated with the rasterized data). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry wherein a single RIP would be used. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry by the teaching of Matias in order to simplify the printing process.

Further with respect to claim 18, Barry discloses an image task manager for retrieving the rasterized image for the print job and determining a print order for each page according to print job parameters (column 6, lines 50-59), and an engine manager (130) for selecting one of the print engines to print. each image (column 6, line 60 to column 7, line 3).

Further with respect to claim 7, Barry discloses a storage device for storing each rasterized image (149); an image task manager for retrieving the rasterized image for the print job and determining a print order for each page according to print job parameters for the rasterized image associated with each page (column 6, lines 50-59), and an engine manager (130) for selecting one of the print engines to print. each image (column 6, line 60 to column 7, line 3).

With regard to claims 6 and 19, Barry discloses that the print engine comprises an electrophotographic print engine having an interface circuit coupled to the input (column 6, lines 12-15).

With respect to claim 8, Barry discloses the job parameters associated with the rasterized images comprises information encoded in the rasterized page data and information entered by the user (column 3, lines 17-25 and 36-39 and column 7, line 67 to column 8, line 14).

With regard to claim 9, Barry discloses the encoded information includes printing control information (column 9, lines 28-36).

With respect to claims 10 and 20, Barry differs from claims 10 and 20 in that he does not disclose a RIP engine comprising a decoder. Matias discloses a decoder (42) for decoding input print strings; a rasterizer (46) for generating a rasterized image mapped to the input print data (column 4, lines 15-38), a formatter (46) for constituting each image as a page of data (column 4, lines 15-38), and a storage (149) for storing each rasterized image. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry by the teaching of Matias in order to improve the image processing.

With regard to claims 11 and 21, Barry discloses page buffers for storing rasterized page data (149, figure 5).

With respect to claims 12 and 22, Barry discloses a disassembler (120) for extracting print job parameters from the rasterized page data, and an arranger (126) for arranging the print order for each print job (column 6, line 60 to column 7, line 3).

With respect to claims 13, 23, and 26, Barry discloses routing rasterized images directly to the print engine (column 7, lines 4-19).

With respect to claims 15 and 25, Barry discloses a selector (120) for associating one of the engines with each rasterized data (column 7, lines 4-19).

With regard to claim 16, Barry discloses that the rasterized images have associated print characteristics for the print job such that the manager is operable to control the selected print engine independent of information encoded in the images (column 7, lines 13-19 and column 9, lines 28-36).

With respect to claims 17 and 27, Barry discloses sending data to at least two print engines at the same time (column 10, lines 49-50).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 18, 19, 22, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry et. al. (hereinafter referred to as Barry) (U. S. 5,596,416) in view of Dorfman et al (Dorfman) (U. S. 5,960,164).

With respect to claims 5, 7, and 18, Barry discloses a multiple print engine (column 1, lines 56-57) for printing one or more copies (files) of a multiple page document (column 1, lines 57-63) input as a single multiple page print job (column 1, lines 63-65 and column 3, lines 36-42) comprising a plurality of physical print engines (10) each having an input for rasterized data,

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and an output bin (23) for receiving printed output pages; a job distributor (30) for receiving multiple page document (column 3, lines 22-25) and providing the rasterized page data for parallel distribution to the inputs of the plural physical print engines (column 3, lines 35-55) according to print job parameters associated with and recovered from the rasterized data (column 3, lines 39-42).

Barry differs from claims 5, 7, and 18 in that he does not clearly disclose that the job distributor has a single RIP engine (processor).

Dorfman discloses a printing apparatus in which a single RIP (13) (column 8, line 65 to column 9, line 9) processes jobs for plural print engines (17 and 17'), the RIP may queue or input the same job to each engine based on variable data fields which are specific to each engine (column 7, lines 19-67) (which reads on providing the rasterized data to the plural engines according to parameters associated with the rasterized data). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry wherein a single RIP would be used. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry by the teaching of Dorfman in order to simplify the printing process.

Further with respect to claim 18, Barry discloses an image task manager for retrieving the rasterized image for the print job and determining a print order for each page according to print job parameters (column 6, lines 50-59), and an engine manager (130) for selecting one of the print engines to print each image (column 6, line 60 to column 7, line 3).

Further with respect to claim 7, Barry discloses a storage device for storing each rasterized image (149); an image task manager for retrieving the rasterized image for the print

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job and determining a print order for each page according to print job parameters (column 6, lines 50-59), and an engine manager (130) for selecting one of the print engines to print. each image (column 6, line 60 to column 7, line 3).

With regard to claims 6 and 19, Barry discloses that the print engine comprises an electrophotographic print engine having an interface circuit coupled to the input (column 6, lines 12-15).

With respect to claim 8, Barry discloses the job parameters associated with the rasterized images comprises information encoded in the rasterized page data and information entered by the user (column 3, lines 17-25 and 36-39 and column 7, line 67 to column 8, line 14).

With regard to claim 9, Barry discloses the encoded information includes printing control information (column 9, lines 28-36).

With regard to claim 11, Barry discloses page buffers for storing rasterized page data (149, figure 5).

With respect to claims 12 and 22, Barry discloses a disassembler (120) for extracting print job parameters from the rasterized page data, and an arranger (126) for arranging the print order for each print job (column 6, line 60 to column 7, line 3).

With respect to claims 13 and 26, Barry discloses routing rasterized images directly to the print engine (column 7, lines 4-19).

With respect to claims 15 and 25, Barry discloses a selector (120) for associating one of the engines with each rasterized data (column 7, lines 4-19).

With regard to claim 16, Barry discloses that the rasterized images have associated print characteristics for the print job such that the manager is operable to control the selected print

engine independent of information encoded in the images (column 7, lines 13-19 and column 9, lines 28-36).

With respect to claims 17 and 27, Barry discloses sending data to at least two print engines at the same time (column 10, lines 49-50).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 10, 20, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry in view of Dorfman as applied to claims 7 and 18 above, and further in view of Mathias.

With respect to claims 10 and 20, Barry as modified differs from claims 10 and 20 in that he does not disclose a RIP engine comprising a decoder. Matias discloses a decoder (42) for decoding input print strings; a rasterizer (46) for generating a rasterized image mapped to the input print data (column 4, lines 15-38), a formatter (46) for constituting each image as a page of data (column 4, lines 15-38), and a storage (149) for storing each rasterized image. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Barry as modified by the teaching of Matias in order to improve the image processing.

With regard to claim 21, Barry discloses page buffers for storing rasterized page data (149, figure 5).

With respect to claim 23, Barry discloses routing rasterized images directly to the print engine (column 7, lines 4-19).

Allowable Subject Matter

9. Claims 14 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 1/30/2004 have been fully considered but they are not persuasive. Applicant submits that the cited references, *Barry* and *Matias* do not disclose that a job is rasterized and stored. The Examiner respectfully disagrees. *Matias* discloses rasterizing a print job and then storing it in a page memory (54) (column 4, lines 15-39). *Matias* also discloses distributing the jobs to plural printers (column 6, lines 51-62).

With respect to *Dorfman*, *Dorfman* discloses a single RIP (13 or 16) which sends jobs to plural printers (column 7, lines 19-31 and column 8, lines 60-67).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION.

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IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Wallerson whose telephone number is (703) 305-8581.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 872-9314 (for formal communications intended for entry)

(for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two
2121 Crystal Drive
Arlington, VA.
Sixth Floor (Receptionist)

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MARK WALLERSON
PRIMARY EXAMINER

Mark Wallerson